DOCUMENT RESUME

ED 053 684 HE 002 451

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TITLE The Undergraduate Woman.
INSTITUTION American Association for Higher Education, Washington, D.C.
SPONS AGENCY Kellogg Foundation, Battle Creek, Mich.
REPORT NO AAHE-BR-5
PUB DATE 15 Mar 71
NOTE 4p.
AVAILABLE FROM Publications Department, American Association for Higher Education, One Dupont Circle, Suite 780, Washington, D.C. 20036

EDRS PRICE EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS Academic Performance, Aspiration, *College Students, *Females, *Higher Education, Literature Reviews, *Research, *Social Discrimination

ABSTRACT

This is the 5th article in a series of AAHE research reports, and summarizes research on the undergraduate woman. It discusses: (1) women as students: their test scores, grades, and academic motivation; (2) women's career aspirations, with research pointing out that high ability women show abundant aspiration when not faced with the instruction to be "realistic"; (3) the relationship between parent's socio-economic status (SES) and their aspirations for their children, with those from low SES having much higher educational aspirations for their sons than for their daughters; and (4) the changing attitudes of women undergraduates toward their future role. The largest reservoir of academically well qualified young people who are not now attending college are those from the lower socioeconomic levels. The most disadvantaged of all by both SES and sex are Spanish American women. The most lopsided sex distribution is in the universities, because women have tended to go to former teacher colleges to become schoolteachers; and in the community colleges, which draw their student population from the lower socioeconomic levels. To rectify this situation improved career counseling and a change of university practices that discriminate against women is in order. (AF)

AAHE AMERICAN ASSOCIATION FOR HIGHER EDUCATION

research report number 5
March 15, 1971

The Undergraduate Woman *by K. Patricia Cross*

This series of AAHE research reports is made possible by a grant from the W. K. Kellogg Foundation. The goal of the series is to summarize the thrust of current research on selected topics and to speculate on what this research implies for future practice.

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What should educators do about Women's Lib?

a. Ignore it and hope that it will go away.
b. Treat it with mildly amused tolerance.
c. Begin to plan for the inevitable—the broader participation of women in all phases of college affairs.
d. Take an active role in exploring the issues and proposing solutions.

To date, the movement has evoked all of the above reactions. A synthesis of the research may not provide the answer as to which aproach is the wisest for you, but it does furnish information that should help in reaching a knowledgeable decision.

Only twenty years ago, 70 percent of all of the students enrolled in institutions of higher education were men. But with each passing decade, the percentage of women pursuing degrees increased by five percent, going from 30 percent in 1948, to 35 percent in 1958, to 40 percent in 1968. The National Center for Educational Statistics predicts that by 1978 women will constitute 45 percent of the national college student population.

The percentage of women in the labor force has increased at about the same rate during this period, rising from 29 percent in 1948 to 42 percent in 1968. Nine out of ten girls graduating from high school today will work at a paid job at some time during their lives, and the typical female high school graduate has more than 25 years of employment outside the home ahead of her.

It is a safe bet that 20 years ago the majority of women saw themselves in the future role of wife and mother, and it is still true today that almost all girls want to get married and raise families—as indeed do almost all boys. But only one female college freshman in four wants her future occupation to center around home and family, and only a miniscule 7 percent think that the activities of the adult woman in American society should be generally confined to home and family (College Student Questionnaires, 1966).

Women As Students

One of the cultural beliefs that delayed the entry of women into colleges and universities some 200 years beyond that of men was the conviction that women were not suited to work requiring sustained intellectual effort. And the folk wisdom still conveys a nagging feeling that women are not quite as good as men at academic pursuits. Present day discussions are full of documentation of the extremely low proportion of women faculty in prestige colleges and of the reluctance of graduate and professional schools to admit "too many" women. And yet the facts concerning the scholarship of women make any fears about academic dilution groundless. On the criteria by which we judge academic performance—test scores, grades, and intellectual values—women are able, interested, and high-achieving students.

Test Scores

Data are not lacking on the abilities of men and women as measured by tests. Long before women's rights movements began receiving national attention, test norms were being published separately for males and females simply because they were easily identifiable groups that showed consistent differences in performance.

The results may be broadly summarized by stating that women score higher on tests of verbal skills and men score higher in quantitative abilities. Here are some of the specifics:

■ Among college-bound school seniors taking the American College Tests (ACT), women score higher in English, men score higher in mathematics and natural sciences, and there are almost no sex differences in the social sciences. For the composite score, the men's average is six-tenths of a point above the women's.

■ On the College-Level Examinations (CLEP) of the College Board, sophomore women score higher in English and humanities while men do better in mathematics and the social and natural sciences.

■ At the college senior level on the Area Tests of the Undergraduate Program of Educational Testing Service, men score higher in social and natural sciences, women score higher in humanities.

■ Upon application to graduate school, women score higher on the verbal test and men take the honors on the quantitative portion of the Graduate Record Examinations.

Whether men or women earn higher aggregate scores on tests depends on what weights are applied in combining test scores to arrive at a single index of academic ability. In most of the testing programs just cited, men would receive a slightly higher total score than women if scaled scores were simply added together. The generalization that men tend to do slightly better than women on tests is somewhat oversimplified, but essentially accurate.

Grades

The single best indicant of college performance is the high school record. And there can be no equivocation about the superior academic achievement of women when measured by the traditional grading system. Studies going back as far as 1929 show better grades for females than for males from elementary school through college (Anastasi, 1958). The high school grades of women are quite significantly above those of men. Typical are the figures from the SCOPE project (Tillery et al, 1966) showing 60 percent of the high school senior women with grades of "mostly B's" or above, compared with 44 percent of the men. At the college level the story is the same. In the spring of 1970, for example, 46 percent of the freshmen women at the University of California at Berkeley made averages of B or better, compared with 39 percent of the men. For seniors, the figures were almost identical; 45 percent of the women and 38 percent of the men had semester averages of B or better.

The synthesis of research about test scores and grades as measures of academic ability leads to the conclusion, baldly put, that women are slightly behind men on test scores but are significantly ahead on grades.

Academic Motivation

What accounts for the apparent success of women in academic activities? I say "apparent success" because grades are only one measure of academic accomplishment. Nevertheless, they are the coin of the realm, and teachers, parents, students, and employers all agree that grades signify the level of academic accomplishment. Most students want good grades and try to attain them, yet girls are better at getting grades than boys are, and this is true at elementary, high school, and college levels.

The explanations offered are many, but perhaps the most frequent observation is that girls simply "try harder." Girls admit to being more conscientious about school work than boys do. Among Project TALENT high school seniors, 47 percent of the girls but only 27 percent of the boys maintained that they "almost never" got behind on school assignments (Flanagan, et al., 1964). Among four-year college freshmen responding to the College Student Questionnaires (CSQ, 1966), women were more likely than men to say that they had studied harder than their high school classmates (62 percent of the women and 52 percent of the men), that their fellow students perceived them as hard workers (76 percent to 63 percent), and that their teachers thought of them as hard workers (63 percent to 44 percent).

Cultural norms dictate that it is somewhat less acceptable for young males to appear conscientious about studies than for females, but it is also true that women spend more actual hours on homework than men do. Seventy-four percent of the women and 59 percent of the men in a nationally diverse sample of college freshmen said that as high school seniors they had studied more than two hours a day (CSQ, 1966). If girls spend more time studying than boys, it seems reasonable that their grades should reflect it.

While a conscientious approach to learning is not to be discounted, hard work by itself doesn't necessarily make an exciting student or a good scholar. In an intensive study of the intellectual values and appreciations of college students, Heist and Yonge (1968) have noted that there are statistically significant differences between the sexes on the scales of the Omnibus Personality Inventory (OPI). Of the four OPI scales that contribute most heavily to "the potential for behaving intellectually," women tend to score higher on fondness for working with ideas and abstractions (Thinking Introversion) and on esthetic appreciations (Estheticism); men score higher on theoretical and scientific interests (Theoretical Orientation); and there is no difference between the sexes on flexibility and tolerance for ambiguities and uncertainties (Complexity).

A review of the major measures of academic ability indicates no important differences between men and women in their potentials for academic accomplishment.

Women As Workers

Most women who work at paid jobs today are married, living with their husbands, and have children in school (U.S. Department of Labor, 1970). When college women state that they look forward to a future that includes husband, children, and career, they are in a sense simply being realistic. What kinds of careers would they prefer, given unrestricted choice?

The SCOPE project underway at the Center for Research and Development in Higher Education at the University of California asked high school seniors from four states to indicate what jobs they would really enjoy doing regardless of whether they had the necessary qualifications. When I compared the choices of women scoring in the lowest third of the class on a test of academic ability with those scoring in the upper third, I found that the choices could be grouped into three clusters (Cross, 1971): a group of jobs liked by the majority of low-ability but not by high-ability women, a group of jobs popular with high-ability but not low-ability women, and a group of jobs liked by women without respect to ability. Most popular among the low-ability women, the majority of whom did not plan to attend college, were the traditional women's jobs—typist, secretary, and office clerk. Jobs liked by high-ability women, most of whom were headed for college, included author of a novel, high school teacher, and college professor (college president and doctor were next in order). The top three choices that showed no difference by ability groupings were the frequently romanticized feminine jobs of housewife, airline hostess, and social worker.

Although much has been written about the low aspirations of women, high ability women show abundant aspiration when not faced with the instruction to "be realistic." The only job that is likely to be realized by a sizeable percentage of these young women, however, is that of high school teacher. It appears that talented college women will be ready for more challenging jobs when society is ready to consider women capable of handling demanding responsibilities. Meanwhile, most college women plan educations

that lead to jobs that "can be combined with home and family." They, as well as many of their counselors, seem to believe that jobs that do not utilize their intellectual capacities are better combined with family responsibilities than jobs that call for greater imagination and talent. Unfortunately, role models who demonstrate the fallacy of this reasoning are all too rare.

Women As Women

Women face certain problems in education because they are women. We know, from many studies, that encouragement from parents bears a high relationship to college attendance. In our society, parents seem to feel that it is more important for a son to go to college than for a daughter. But acceptance of an educational double standard depends in part on socioeconomic status. Census Bureau interviewers (Froomkin, 1970) found that the higher the educational level of the parents, the less they were likely to differentiate between the educational needs of sons and daughters. For example, 73 percent of the mothers with a grade school education wanted college for their sons, but only 60 percent expressed the same desire for their daughters. Among mothers who had attended college, there was virtually no difference in the education desired for males and females—98 percent wanted sons to go to college and 97 percent wanted college for their daughters.

Given these parental influences, it is not surprising that the greatest differences in the college attendance rates of men and women occur among students who are above-average in ability and below-average in socioeconomic status. In other words a bright but poor male has a much better chance of going to college than has his equally able sister. Hilton (1970) found that 75 percent of the boys who scored in the top quarter on a test of academic aptitude entered college in the fall following high school graduation even though they fell in the lowest quarter of an index of socioeconomic status (SES). Sixty percent of the girls of equal ability and SES entered college. On the other hand, there was virtually no difference in the college attendance rates of males and females who ranked in the upper half of the sample on both ability and SES measures. Approximately 80 percent of this group entered college in the fall following high school graduation.

Women as women in our society share a problem with other groups of people that have not been a part of the dominant culture, and that is one of diminished self-confidence. Much as members of ethnic minorities have been encouraged to set their aspirations "realistically" for jobs that would be "open" to them, women have been encouraged to think about elementary school teaching rather than college teaching, about typing instead of business management, and about becoming nurses rather than doctors. These constant reminders of secondary status in society result in self concepts that are in accord with cultural expectations. Women are significantly less likely than men to believe, as high school seniors, that they "definitely have the ability" to do college work. Despite their better high school grades, which should represent an independent measure of success to them, only 26 percent of the women, compared with 35 percent of the men, expressed this high level of confidence in their academic ability (Tillery et al., 1966). Would it be different if society considered higher education as appropriate for women as for men?

Not many colleges collect information about student attitudes year after year, but were they to do so, they would find some very interesting trends with respect to female students. One women's college has administered the College Student Questionnaires (CSQ) to the entering freshmen class each year since 1964 (College Research Center, 1971). The most dramatic changes to take place over the six-year period occurred in student perceptions of women's roles. One question asked what the respondent would like to be doing 15 years hence. Sixty-five percent of the 1964 freshman class opted for the role of housewife with one or more children. Over the next six years, however, there was a steady decline in the percentage choosing this lifestyle until in 1970 only 31 percent of the entering class preferred the traditional female role. Two other alternatives increased in popularity: the percentage wanting to be a married career woman with children doubled, going from 20 percent in 1964 to 40 percent in 1970; and those who were uncertain increased from 13 to 22 percent, probably reflecting the strain that rapidly increasing options places on the decision-making abilities of individuals during periods of great social change.

Another member college of the College Research Center also found a clear trend toward increasingly liberal views of the role of adult women. Only 19 percent of the women who were freshmen in 1968 endorsed a statement which read that women "should be allowed to choose to be entirely free of domestic responsibilities in order to work on an equal footing with men at all occupational levels." Four years later, 53 percent of the seniors endorsed this "liberated" viewpoint.

Implications for Action

A knowledge of information about the academic interests and abilities of young women and about the dramatic changes taking place in the multiple roles of women in modern society suggests that actions a and b proposed in the opening paragraph of this review are inappropriate responses to the women's rights movement. The drive of young women to attain educations and to use their knowledge and their minds is no less than that of young men. There is no reason to think that the demands for full educational rights for women will or should subside. Assuming that most educators will elect the stance described by alternative d—and somewhat more passively c—the questions to be answered are: Where should planning begin and what actions can be initiated? The answers vary considerably depending on the type of college.

The highest male concentrations exist in commmunity colleges and in selective universities. The reasons are quite different, but both are linked to the cultural double standard. Community colleges draw their students primarily from the lower socioeconomic levels from which males are more likely than females to attend college. The largest reservoir of academically well-qualified young people who are not now attending college are women from the lower socioeconomic levels (Cross, 1971). Knoell (1970) studied the college-going rates of whites and blacks in urban areas and concluded that, "White women [high school] graduates now tend to be the neglected group in terms of college recruit-

ment efforts unless, of course, they come from high schools with traditionally high college-going rates."

Other evidence (Cross, 1971) indicates that among high school graduates black women are somewhat more likely than black men to enter college. Spanish American women, however, are seriously disadvantaged by both SES and sex, and Oriental women have the greatest handicap of all *relative* to their brothers. Less than one-third of the Orientals in in college are women, but because Orientals are more likely to attend college than other ethnic minority groups, Oriental women still have an educational advantage over Spanish American women.

Since women of low socioeconomic status who are not now attending college span the entire range of academic ability, all colleges—from open-door to highly selective institutions—should take active steps to make sure that women are provided equal educational opportunity.

The lopsided sex distribution in the universities is difficult to understand since these students come predominantly from a group that ranks in the upper half on measures of SES and ability. Research indicates that most students in this category continue their education and that women are as likely as men to enter college. What happens, of course, is that women tend to enter state colleges—the former teachers' colleges—while men enter the universities. Why? In part, beause women have been led to believe that elementary and high school teaching are appropriate career goals for women.

A rash of criticism about the feminized elementary and secondary schools has led to the active recruitment of male teachers. Equally appropriate, however, would be efforts to divert some women into preparation for teaching at the college level. It should also be recognized that some women, now enrolled in teaching curricula, would make better metallurgists than teachers. State colleges should be greatly concerned about making young women aware of the variety of choices that are becoming available to them. (For encouraging evidence about the increased demand for women college graduates, see *Newsweek,* January 11, 1971, p. 70.) Indeed, the predicted oversupply of elementary and secondary teachers makes the matter urgent. Improved career counseling, special programs featuring information about a broad range of career opportunities, dissemination of information about changing patterns in women's lives, campus visits by outstanding women who have successfully combined marriage and careers—these are examples of the kinds of action that are indicated.

Finally, what should the universities do to bring about equality of educational opportunity for women? First and foremost, an examination of practices that operate to discriminate against women is in order. Most such practices are seemingly related more to historical tradition than to rational decisions; they fall in three major categories: (a) Housing regulations frequently limit women's enrollments to the number of dormitory spaces available. (b) Compared with the broad choices of majors offered men, the academic majors that have been attractive to women have been limited. Thus, there have been more "male spaces" in the classrooms. Precollege and college counseling to encourage women to follow their own interests rather than those dictated by cultural stereotypes seems a better long-range solution than attempting to increase the numbers of traditional women's fields. But arbitrary sex quotas—as in colleges of liberal arts for example—frequently operate in a discriminatory manner by placing a ceiling on the number of qualified women admitted while permitting the acceptance of men with lower qualifications. (c) Society has tended to look upon universities as male institutions, and females have been slower to apply. The predominance of men on faculties not only perpetuates this view but deprives young adults—both male and female—of the opportunity to interact with talented female scholars. Universities need to make it widely known that women are welcomed into academe on an equal basis with men.

Although this review is optimistic that educators will welcome the fuller participation of women in academic life, past experience with social change indicates that the adjustments will not be easy. The rising aspirations of women, the impatience of the young, the entrenchment of old ways, and the resistance of a tradition-bound enterprise to change all suggest problems ahead if colleges do not begin now to make reforms that take cognizance of this important dimension of social change.

REFERENCES

American Council on Education. *National Norms for Entering College Freshmen—Fall, 1970.* ACE Research Report No. 6. Washington: Office of Research, ACE, 1970.

Anastasi, Anne. *Differential Psychology.* New York: Macmillan, 1958.

Caldwell, E., and R. Hartnett. "Sex Bias in College Grading?" *Journal of Educational Measurement,* Vol. 4, No. 3, 1967, pp. 129-132.

College Research Center. Reports to Member Colleges. Princeton: Educational Testing Service, 1971.

College Student Questionnaires (CSQ). *Comparative Data, Part I.* Princeton: Educational Testing Service, 1966.

Comparative Guidance and Placement Program (CGP). *Program Summary Statistics, 1969-70.* Prepared for the College Entrance Examination Board, Princeton: Educational Testing Service, 1969.

Cross, K. Patricia. *New Students to Higher Education.* San Francisco: Jossey-Bass, 1971. In preparation.

Flanagan, John, and Associates. *The American High Scool Student.* Pittsburgh: Project TALENT Office, University of Pittsburgh, 1964.

Froomkin, Joseph. *Aspirations, Enrollments, and Resources: The Challenge to Higher Education in the Seventies.* U.S. Office of Education. Wasington, D. C.: Government Printing Office, 1970.

Heist, Paul, and George Yonge. *Omnibus Personality Inventory, Form F Manual.* New York: The Psychological Corporation, 1968.

Hilton, Thomas, director of the Educational Testing Service Growth Study. Princeton: Unpublished data, 1970.

Knoell, Dorothy M. *People Who Need College: A Report on Students We Have Yet To Serve.* Washington: American Association of Junior Colleges, 1970.

Singer, J. E. "The Use of Manipulative Strategies: Machiavellianism and Attractiveness," *Sociometry,* Vol. 27, 1964, pp. 128-150.

Tillery, Dale, Denis Donovan, and Barbara Sherman. *SCOPE: Four-State Profile, Grade 12, 1966.* Prepared for College Entrance Examination Board. Berkeley: Center for Research and Development in Higher Education, University of California, 1966.

U.S. Department of Labor, Women's Bureau. *Background Facts on Women Workers in the United States.* Washington, D. C.: Government Printing Office, 1970.